

Appl. No. 10/626,000  
Response to Office Action of 1/04/2007

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## AMENDMENTS TO THE CLAIMS

APR 03 2007

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of the Claims:

Claims 1-10: Cancelled

11. (Original) An apparatus for communication and reconnaissance coupled with protection for the auditory system, comprising:
- a sound attenuation barrier for each ear;
  - an electronic circuit for each ear, comprising:
    - a microphone for transducing ambient sounds into electronic signals, and having an output;
    - a fixed-gain pre-amplifier, having an input connected to the output of said microphone, having an output;
    - a rheostat having an input connected to the output of said fixed-gain pre-amplifier and having an output;
    - a fixed-gain output amplifier, having an input connection to the output of said rheostat, and having an output;
    - an earphone, having an input connection to the output of said fixed-gain output amplifier;
    - a set of gain control switches coupled to said rheostat for each ear, for increasing or decreasing the level of said electronic signals supplied thereto;

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a power supply that establishes a hard output limit for the electronic circuit when said electronic signal levels exceed seventy-five percent (75 %) of the power supply voltage;

an output to a radio communications system; and

an input from said radio communications system;

such that ambient sound waves are attenuated and sound waves suitable for the auditory system are transmitted to the external auditory canal of the ear unless the sound output of the electronic circuit has been de-activated.

12. (Original) The apparatus as in Claim 11, in which the microphone is built into a communications ear plug.

13. (Original) An apparatus for communication and reconnaissance coupled with protection for the auditory system, comprising the acts of:

a sound attenuation barrier for each ear;

an electronic circuit for each ear, comprising:

at least one microphone for transducing ambient sounds into electronic signals, having an output;

a fixed-gain pre-amplifier, having an input connected to the output of said microphone, and having an output;

a rheostat having an input connected to the output of said fixed-gain pre-amplifier and having an output;

a fixed-gain output amplifier, having an input connection to the output of said rheostat, and having an output;

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an earphone, having an input connection to the output of said fixed-gain output amplifier;

a set of gain control switches coupled to said rheostat for each ear, for increasing or decreasing the level of said electronic signals supplied thereto; and

a power supply that establishes a hard output limit for the electronic circuit when said electronic signal levels exceed seventy-five percent (75 %) of the power supply voltage;

such that ambient sound waves are attenuated and sound waves suitable for the auditory system are transmitted to the external auditory canal of the ear unless the sound output of the electronic circuit has been de-activated.

14. (Original) The apparatus as in Claim 13, in which the microphone is built into a communications ear plug.

15. (Original) An apparatus for communication and reconnaissance coupled with protection for the auditory system, comprising:

a sound attenuation barrier for each ear;

an electronic circuit for each ear, comprising:

    a microphone for transducing ambient sounds into electronic signals, having an output;

    a fixed-gain pre-amplifier, having an input connected to the output of said microphone, and having an output;

    a rheostat having an input connected to the output of said fixed-gain pre-amplifier and having an output;

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a fixed-gain output amplifier, having an input connection to the output of said rheostat, and having an output;

a set of gain control switches coupled to said rheostat for each ear, for increasing or decreasing the level of said electronic signals supplied thereto;

a power supply that establishes a hard output limit for the electronic circuit when said electronic signal levels exceed seventy-five percent (75 %) of the power supply voltage;

an output to a radio communications system; and  
an input from said radio communications system;

such that ambient sound waves are attenuated and sound waves suitable for the auditory system are transmitted to the external auditory canal of the ear unless the sound output of the electronic circuit has been de-activated.

16. (Original) The apparatus as in Claim 15, in which the microphone is built into a communications ear plug.

17. (Original) An apparatus for communication and reconnaissance coupled with protection for the auditory system, comprising:

a sound attenuation barrier for each ear;

an electronic circuit for each ear, comprising:

at least one microphone for transducing ambient sounds into electronic signals, having an output;

a fixed-gain pre-amplifier, having an input connected to the output of said microphone, and having an output;

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a rheostat having an input connected to the output of said fixed-gain pre-amplifier and having an output;

a fixed-gain output amplifier, having an input connection to the output of said rheostat, and having an output;

a set of gain control switches coupled to said rheostat for each ear, for increasing or decreasing the level of said electronic signals supplied thereto; and

a power supply that establishes a hard output limit for the electronic circuit when said electronic signal levels exceed seventy-five percent (75 %) of the power supply voltage;

such that ambient sound waves are attenuated and sound waves suitable for the auditory system are transmitted to the external auditory canal of the ear unless the sound output of the electronic circuit has been de-activated.

18. (Original) The apparatus as in Claim 17, in which the microphone is built into a communications ear plug.